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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/563,759	06/09/2006	Mark John Goulding	MERCK-3113	3208
23599 7590 01/20/2011 MILLEN, WHITE, ZELANO & BRANIGAN, P.C. 2200 CLARENDON BLVD. SUITE 1400 ARLINGTON, VA 22201				
EXAMINER WU, SHEAN CHIU				
ART UNIT 1722		PAPER NUMBER		
NOTIFICATION DATE 01/20/2011		DELIVERY MODE ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

docketing@mwzb.com

# Office Action Summary

**Application No.**

10/563,759

**Applicant(s)**

GOULDING ET AL.

**Examiner**

Shean C. Wu

**Art Unit**

1722

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 November 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 2-9, 11-13, 16-20, 25 and 33-51 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2, 8, 9, 11, 12, 25, 33-37, 43 and 45-48 is/are allowed.
- 6) ☐ Claim(s) 3, 4, 6, 7, 13, 16-20, 38-42, 44 and 49-51 is/are rejected.
- 7) ☒ Claim(s) 5 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of Filing/Response Cited (PTO-332)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### Claim Rejections - 35 USC § 102

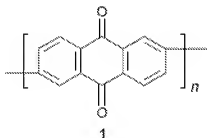
1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

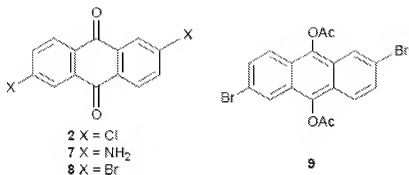
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 3, 6-7, 13 and 49-51 are rejected under 35 U.S.C. 102(b) as being anticipated by Power et al. (Chem. Com., 1998, (8), 873-874).

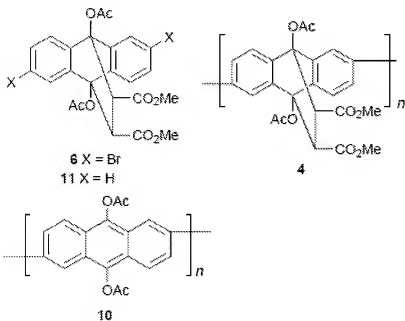
The reference discloses a method of preparing the poly(anthrac-9,10-quinone-2,6-diyl) shown below formula 1, which is useful for electrochromic display and as charge injection layers in electroluminescent.



The commercial compound of 7 was converted to 8 and after reductive acetylation of 8 by zinc dust to obtain the anthracene 9. The compound 9 reads on the present formula IIA wherein  $-\text{CH}_2-$  is replaced by  $-\text{OAc}-$  at  $\text{R}^{5,6}$  and  $\text{R}^{1,2} = \text{Br}$  ( $z=1$ ,  $g=1$  and  $a=0$ ).

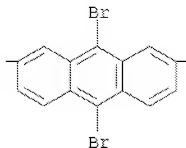


The reference also discloses the polymer 10 derived from precursor polymer 4, which was derived from adduct 6. The polymer containing monomer 10 reads on the present formula I2k wherein -CH<sub>2</sub>- is replaced by -OAc- at R<sup>5,6</sup>.



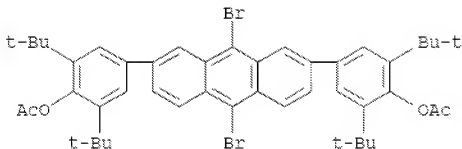
3. Claim 4 is rejected under 35 U.S.C. 102(b) as being anticipated by CAPLUS 2001: 449553.

The reference compound represented by RN-361449-39-0 shown below anticipates the claimed compound of formula II with simplify  $R^{11}-A^1-G^1-A^3-R^{12}$  formula



( $R^{11}=R^{12}=OAc$ ,  $A^1=A^3=(t-Bu)_2-Ph$  and  $G^1=$

RN-361449-39-0:



#### Claim Rejections – 35 USC § 112

4. Claims 16-20, 38-42 and 44 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 38-40 and 44, the claims do not have antecedent basis because claim 37 contains only repeating unit G.

In claims 41-42, there is no variable “z” in claim 37.

For claims 16-20, the language of the claim dependency should be written as same as claims 45-48 for clarity.

#### **Allowable Subject Matter**

5. Claims 2, 8-9, 11-12, 25, 33-37, 43 and 45-48 are allowed.

Claim 2 requires at least one "G-A-G" for the core.

Claim 37 requires at least one polymerizable P-Sp at anthracene core.

6. Claim 5 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### **Response to Arguments**

7. Applicant's arguments, see remarks, filed 11/9/11, with respect to the rejections of the previous Office action have been fully considered and are persuasive in part. For the claim 13, the polymerizable can be Br. Therefore, the rejection over Power is still maintained. However, upon further consideration of newly added and amended claims, new grounds of rejections are made in view of the sections 2-4 cited above.

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shean C. Wu whose telephone number is 571-272-1393. The examiner can normally be reached on 10:30 AM to 7:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kelly Cynthia can be reached on 571-272-1526. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Shean C Wu/  
Primary Examiner, Art Unit 1722

SCW